AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A serial communications link ~~system~~ comprising:

a scrambler device for receiving an original data bit stream and converting said original ~~converting original received~~ data bit stream into scrambled data; and

an ECC encoder device for converting said scrambled data into ECC-encoded data.

2. (Original) The system as recited in Claim 1, further comprising:

a serializer for converting said ECC-encoded data into serialized data;

wherein the ECC-encoded data includes frame alignment information; and

the system further comprises a receiver for receiving said serialized data and converting the serialized data into data frames based upon the frame alignment information.

3. (Currently Amended) The system as recited in Claim 2, wherein the receiver comprises:

a frame-recoverer for converting said serialized data into data frames;

an ECC decoder for converting said data frames into ECC-decoded data and error indications; and

a ~~scrambler~~ descrambler for converting said ECC-decoded data into de-scrambled data.

4. (Previously Presented) The system as recited in Claim 3, wherein said frame-recoverer uses said error indications in converting said serialized data into data frames.

5. (Original) The system as recited in Claim 1, wherein said ECC encoder applies an error correction code in converting said scrambled data into said ECC-encoded data.

6. (Currently Amended) A serial communications method, comprising the steps of:

receiving an original data bit stream at a scrambler device, said original data bit stream comprising data bits and other bits;

converting said original ~~received~~ data bit stream into scrambled data, by said scrambler device, prior to performing another data function on said original data bit stream; and

converting said scrambled data into ECC-encoded data.

7. (Original) The method as recited in Claim 6, further comprising the steps of:

generating a serial stream of the ECC-encoded data; and

transmitting said serial stream.

8. (Original) The method of Claim 7, wherein:

the ECC-encoded data includes frame alignment information; and

the method further comprises receiving said serialized data and converting said serialized data into data frames based upon said frame alignment information.

9. (Original) The method of Claim 7, further comprising:

receiving said serialized data;

converting said serialized data into data frames;

converting said data frames into ECC-decoded data and error indications; and

converting said ECC-decoded data into de-scrambled data.

10. (Original) The method of Claim 9, wherein the step of converting the serialized data comprises converting the serialized data into data frames based upon said error indications.

11. – 33. (canceled)

34. (Currently Amended) A serial communication link ~~system~~ comprising:

a scrambler device programed to convert a received bit stream, having data bits therein, ~~for converting received data~~ into scrambled data, said received bit stream ~~data~~ being without redundant bits ~~inserted by said serial communication system~~ and without being encoded prior to being scrambled ~~or being re-encoded by said serial communiction system~~; and

an ECC encoder programmed to convert ~~for converting~~ said scrambled data into ECC-encoded data.